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10/509,226	04/14/2005	Hiroshi Ono	KOD174B.001APC	1793

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EXAMINER
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KRUEER, KEVIN R

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 10/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/509,226

Applicant(s)

ONO ET AL.

Examiner

Kevin R. Krueer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on 20 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 3-6,9 and 11-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3-6,9 and 11-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections Overcome by Amendment***

1. The rejection of claims 1-4, and 7-9 under 35 U.S.C. 102(b) as being anticipated by JP 55-039329A (herein referred to as Asahi) has been overcome by amendment.
2. The rejection of claims 1-4, and 7-9 under 35 U.S.C. 102(b) as being anticipated by JP51-04330A (herein referred to as Sumitomo) has been overcome by amendment.
3. The rejection of claims 1-4, and 7-9 under 35 U.S.C. 102(b) as being anticipated by JP 55-040835(herein referred to as Asahi) has been overcome by amendment.
4. The rejection of claims 1 and 6 under 35 U.S.C. 102(b) as being anticipated by Ishii et al (US 6,120,655) has been overcome by amendment.
5. The rejection of claims 5 and 10-12 under 35 U.S.C. 103(a) as being obvious over JP 55-039329A (herein referred to as Asahi), JP 55-040835(herein referred to as Asahi'835), or JP51-04330A (herein referred to as Sumitomo), as applied to claims above, and further in view of Kato et al (US 5,995,785) has been overcome by amendment.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3-6, 9, and 11-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2003-183453A (herein referred to as Toyoda).

Toyoda teaches an aqueous dispersion of an ethylene based polymer composition that has excellent blocking resistance (abstract). The polymer comprises an ethylene/unsaturated carboxylic acid polymer with a Mn of 4,00-8,000. The copolymer may further comprise a sulfonate (abstract). Said dispersion comprises particles having the size of 0.1-20um (0006). The pH of said system is 6 or less (00127). The polymer has a unsaturated carboxylic content of 30-100mgKOH, herein understood to read on the claimed constituent (b), and 0.1-50millimole equivalent of sulfonate, herein relied upon to read on the claimed vinyl sulfonate constituent (c). Alkali can be added as necessary (0120).

Toyoda does not teach the claimed coating weight. However, Toyoda teaches the particles should be included in an ink composition. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the anti-blocking ethylene unsaturated carboxylic acid composition taught in Toyoda to a paper substrates in amounts necessary based upon the desired ink coverage.

8. Claims 6, 3, 4, 9, 13, 16-20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 55-039329A (herein referred to as Asahi) in view of JP 59174850A (Ricoh).

Asahi teaches an ethylenic copolymer composed of ethylene and alpha-beta ethylenically unsaturated carboxylic acid wherein at least 10% of the acid is neutralized with a metal and/or ammonium ions. The copolymer comprise 90-97wt% ethylene, and 3-10mol% of unsaturated carboxylic acid and esters thereof (abstract). Said esters are understood to read on the claimed constituent c of claim 3. Said coating exhibits

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blocking resistance (herein understood to be synonymous with "slipping properties"). The "at least 10%" neutralization is understood to read on the claimed limitations of claim 4.

Asahi does not teach the claimed coating weight. However, Ricoh teaches an anti-blocking metal ionized ethylene acrylic acid copolymer (abstract). Said coating is applied to a paper substrate in amounts of 0.2-0.7g/sq. m. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the anti-blocking ethylene unsaturated carboxylic acid composition taught in Asahi to the paper taught therein in amounts of 0.2-0.7g/sq. m. The motivation for doing so would have been that Ricoh teaches such amounts are sufficient to achieve anti-blocking affects with ethylene unsaturated carboxylic acid coatings.

With regards to claim 22, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply said coating to both sides of the paper substrate in order to obtain anti-blocking properties on both surfaces.

9. Claims 6, 3, 4, 9, 13, 16-20 and 22 are rejected under 35 U.S.C. 103(a) as unpatentable over JP51-04330A (herein referred to as Sumitomo) in view of JP 59174850A (Ricoh).

Sumitomo teaches an ethylenic copolymer composed of ethylene and alpha-beta ethylenically unsaturated carboxylic acid wherein 20-100mol% of the acid is neutralized with amine and/or ammonium ions. The copolymer comprise 70-95wt% ethylene, and 5-30mol% of unsaturated carboxylic acid (abstract). Said neutralized acids are understood to read on the claimed constituent c of claim 3. Said coating exhibits blocking resistance

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(herein understood to be synonymous with "slipping properties"). The neutralization is understood to read on the claimed limitations of claim 4.

Sumitomo does not teach the claimed coating weight. However, Ricoh teaches an anti-blocking metal ionized ethylene acrylic acid copolymer (abstract). Said coating is applied to a paper substrate in amounts of 0.2-0.7g/sq. m. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the antiblocking ethylene unsaturated carboxylic acid composition taught in Sumitomo to the paper taught therein in amounts of 0.2-0.7g/sq. m. The motivation for doing so would have been that Ricoh teaches such amounts are sufficient to achieve anti-blocking affects with ethylene unsaturated carboxylic acid coatings.

With regards to claim 22, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply said coating to both sides of the paper substrate in order to obtain anti-blocking properties on both surfaces.

10. Claims 6, 3, 4, 9, 13, 16-20, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 55-040835(herein referred to as Asahi) in view of JP 59174850A (Ricoh).

Asahi teaches paper coated with a lubricant comprising an ethylenic copolymer composed of ethylene and alpha-beta ethylenically unsaturated carboxylic acid wherein at least 10% of the acid is neutralized with a metal and/or ammonium ions. The copolymer comprise 90-97wt% ethylene, and 3-10mol% of unsaturated carboxylic acid and esters thereof (abstract). Said esters are understood to read on the claimed constituent c of claim 3. Said coating exhibits blocking resistance (herein understood to

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be synonymous with "slipping properties"). The "at least 10%" neutralization is understood to read on the claimed limitations of claim 4.

Asahi does not teach the claimed coating weight. However, Ricoh teaches an anti-blocking metal ionized ethylene acrylic acid copolymer (abstract). Said coating is applied to a paper substrate in amounts of 0.2-0.7g/sq. m. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the antiblocking ethylene unsaturated carboxylic acid composition taught in Asahi to the paper taught therein in amounts of 0.2-0.7g/sq. m. The motivation for doing so would have been that Ricoh teaches such amounts are sufficient to achieve anti-blocking affects with ethylene unsaturated carboxylic acid coatings.

With regards to claim 22, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply said coating to both sides of the paper substrate in order to obtain anti-blocking properties on both surfaces.

11. Claims 5, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 55-039329A (herein referred to as Asahi), JP 55-040835(herein referred to as Asahi'835), or JP51-04330A (herein referred to as Sumitomo) in view of JP 59174850A (RicoH), as applied to claims above, and further in view of Kato et al (US 5,995,785).

Asahi, Asahi'835 and Sumitomo are relied upon as above, but do not teach the size of the copolymer particle. However, Kato teaches such lubricant typically have a particle size of .5-10um (col 6, lines49+). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize copolymer with a

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particle size of .5-10um. The motivation for doing so would have been that said particle sizes are known in the art to be useful as lubricants.

***Response to Arguments***

Applicant's arguments filed July 20, 2006 have been fully considered but are moot in view of a new grounds of rejection.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin R. Kruer whose telephone number is 571-272-1510. The examiner can normally be reached on Monday-Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kevin R. Kruer  
Patent Examiner-Art Unit 1773